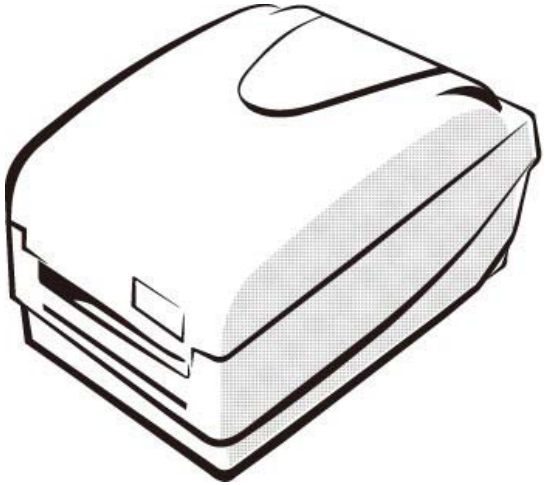
symcode

DESKTOP BARCODE PRINTER

MJ-2844
User's Manual



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Product Improvements

Continuous improvement of products is a policy of Alacrity barcode technology All specifications and signs are subject to change without notice.

Table of Contents

Getting Started 3
Package Contents..... 4
Connecting the Power Supply 5
Getting to Know Your Printer 6
Parts and Features 6
Controls and Indicators 9
Loading Ribbon and Media 11
Loading Ribbon 11
Loading Media..... 16
Calibration and Configuration..... 20
Performing Calibration and Configuration 20
Resetting to Factory Default Settings 21
Installing the Printer Driver 22
Troubleshooting 32
LED Diagnosis 32
Miscellaneous 35
Recovery 36
Caring for Your Printer..... 37
Cleaning 37
Media Sensor 37
Thermal Print Head 37
Replacing the Thermal Print Head..... 40
Important notice during TPH replacement 42
Technical Reference 43

Getting Started

Congratulations on choosing the Alacrity desktop barcode printers.
This manual will help you get to know your new printer.
There are two parts to this manual,an operation guide information.
The operation guide is illustrated to help you quickly become familiar with the printer.
The related information includes troubleshooting, maintenance and technical information for your reference.

Package Contents

- Printer
- Power Supply
- Power Cord
- CD ROM
- USB Cable
- Media Holder

Note:Pictures for reference only!

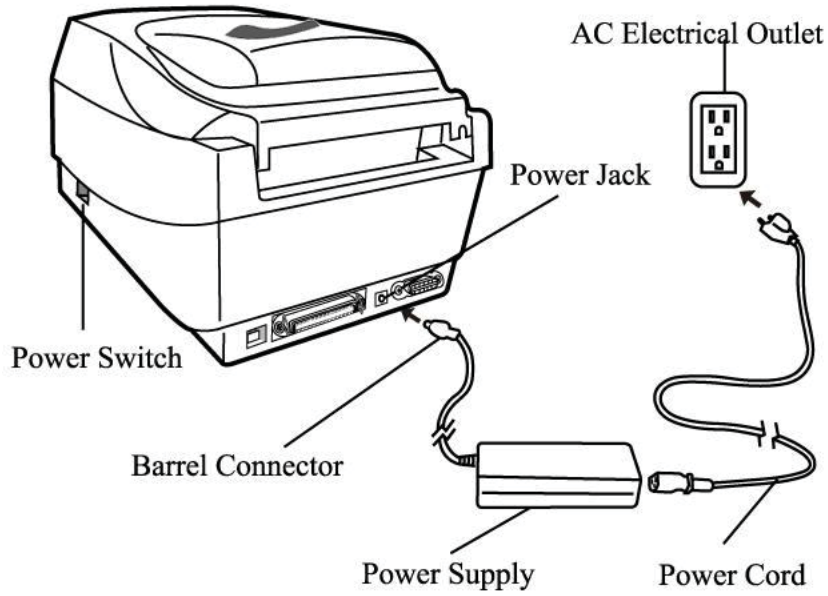
Connecting the Power Supply

Connect the power supply as below.

WARNING! *Do not operate the printer and power supply in an area where they can get wet.*

Make sure the power switch is in the "O" position.

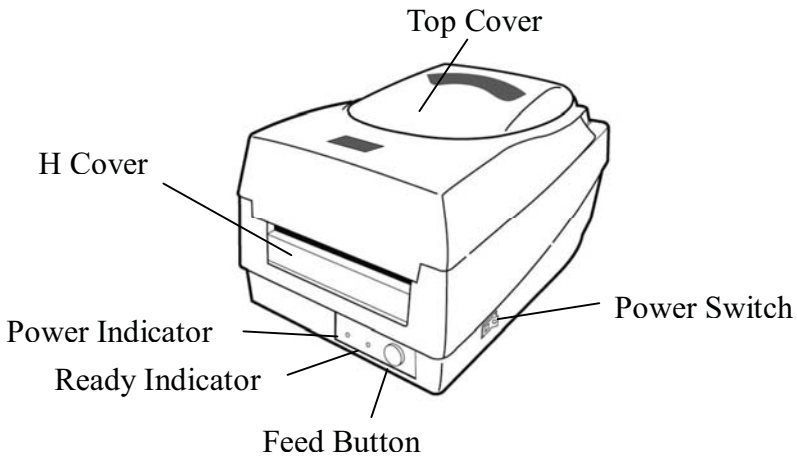
1. Insert the barrel connector of the power supply into the power jack on the back of the printer. Note the location of the power jack for different models in the diagrams below.
2. Insert the separate power cord into the power supply.
3. Plug the other end of the cord into an AC electrical outlet.

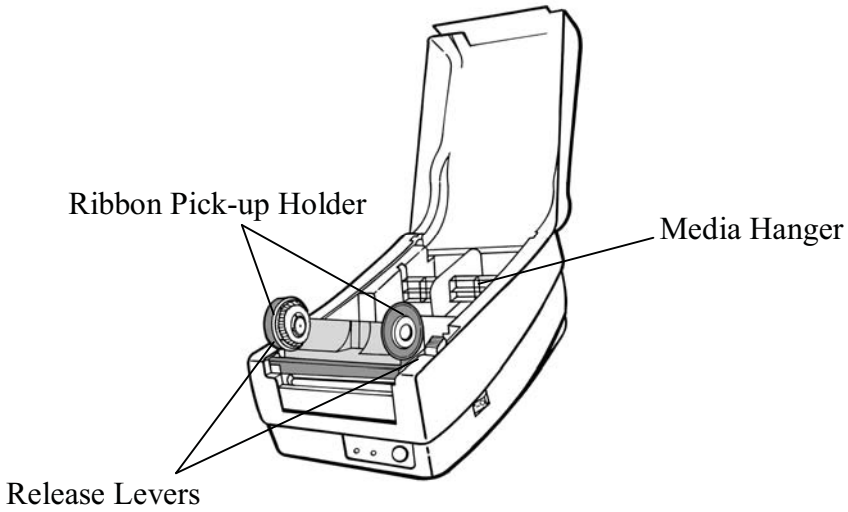


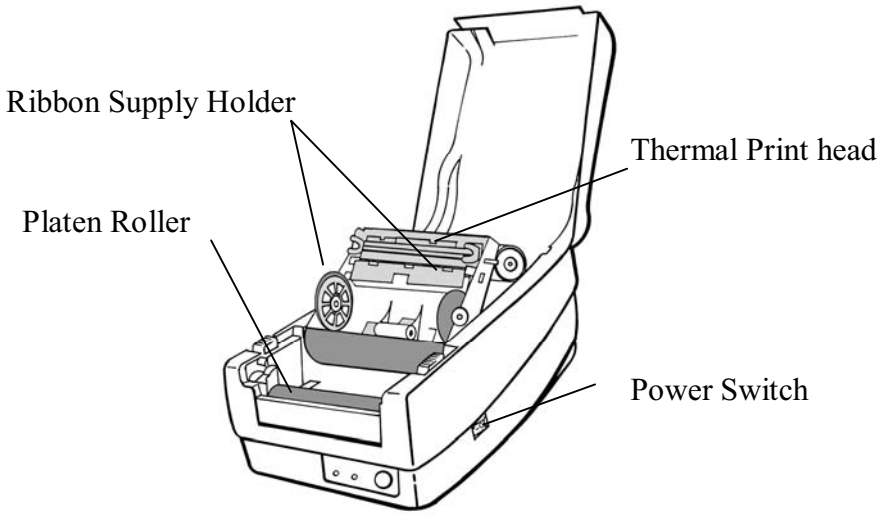
Getting to Know Your Printer

The illustrations that follow describe the printer's parts, features, controls, and indicators.

Parts and Features

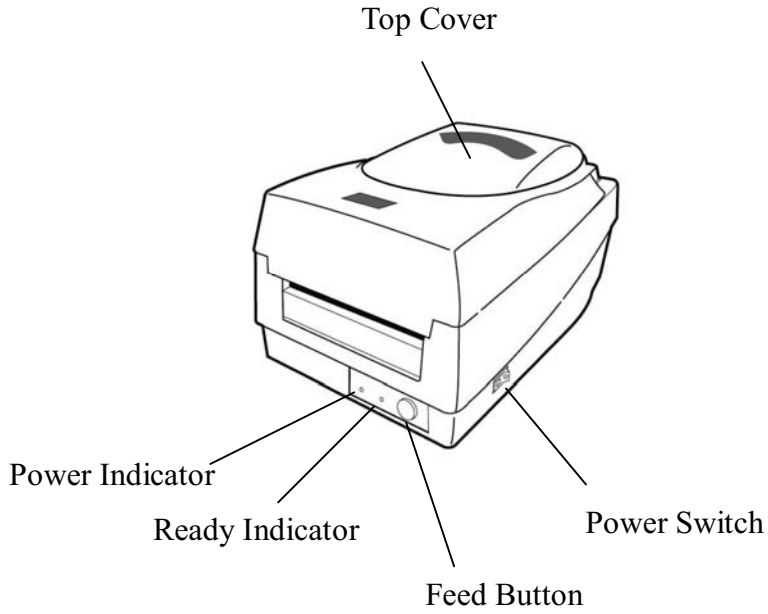






Controls and Indicators

The printer's controls and indicators are shown in the diagram below. The following table explains control and indicator functions.



Control / Indicator	Function
Power Switch	□ On: turns on normal operation □ Off: turns off power ***Note:*** *Turn power off before connecting or disconnecting cables*
Power Indicator	□ Green light shows the power-on □ Light off shows the power-off □ Blinking light indicates error has occurred
Ready Indicator	□ Green shows printer is ready to operate □ Blinking light indicates printer is paused or data transferring □ Seagull driver status monitor
Feed Button	□ Press to advance labels to the first printing position □ Press to take the printer out of "pause" □ Press and hold while turning on the power to print out a configuration profile

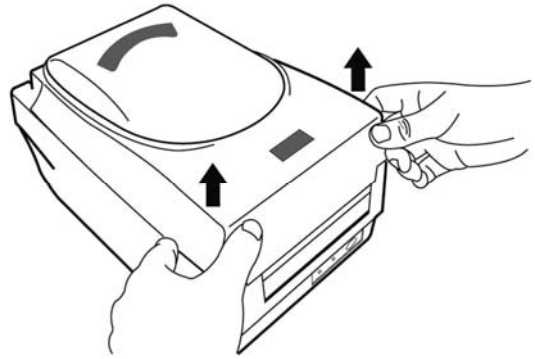
Loading Ribbon and Media

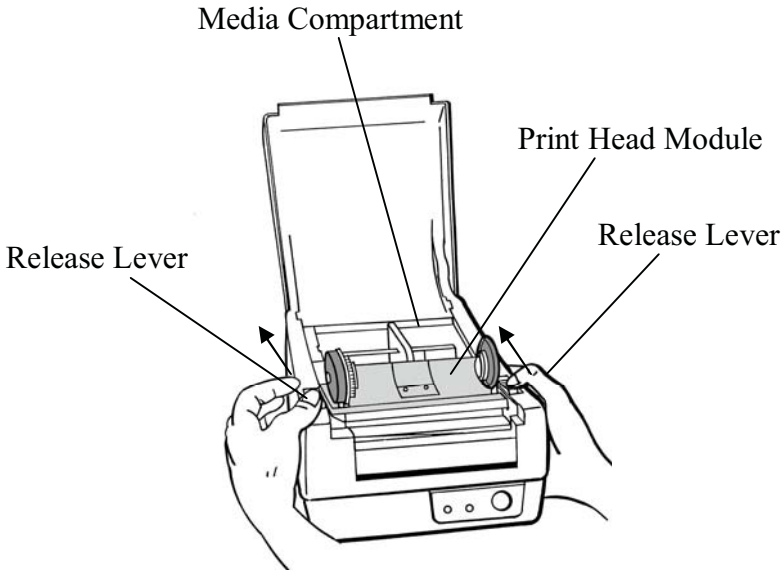
This section describes how to load ribbon and media in printer.

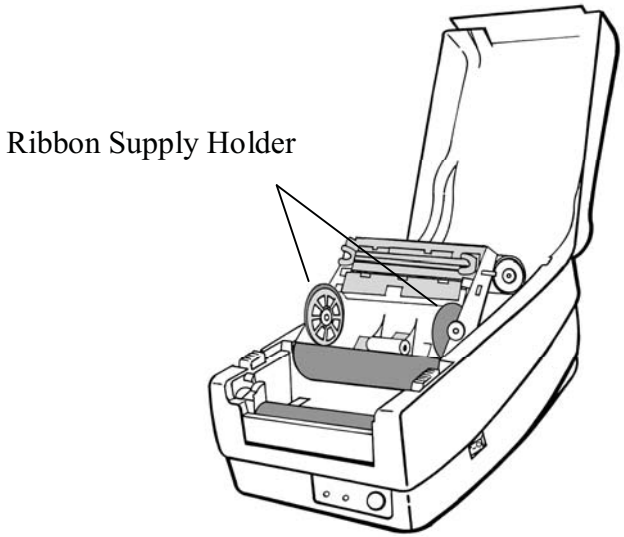
Loading Ribbon

Note: *This section does not apply to direct thermal printing.*

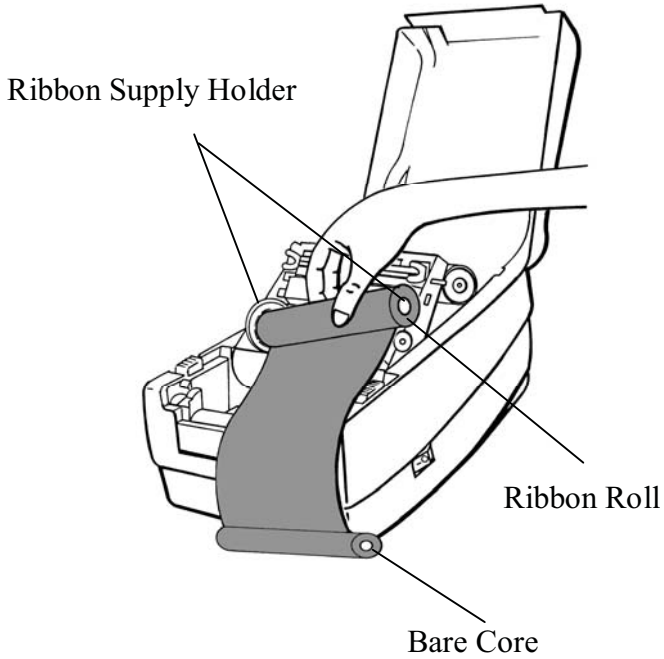
1. Lift the top cover to expose the media compartment.
2. Unlatch the print head module by pushing the two white release levers on the sides toward the rear.
3. Turn over the print head module to expose the ribbon supply holder.



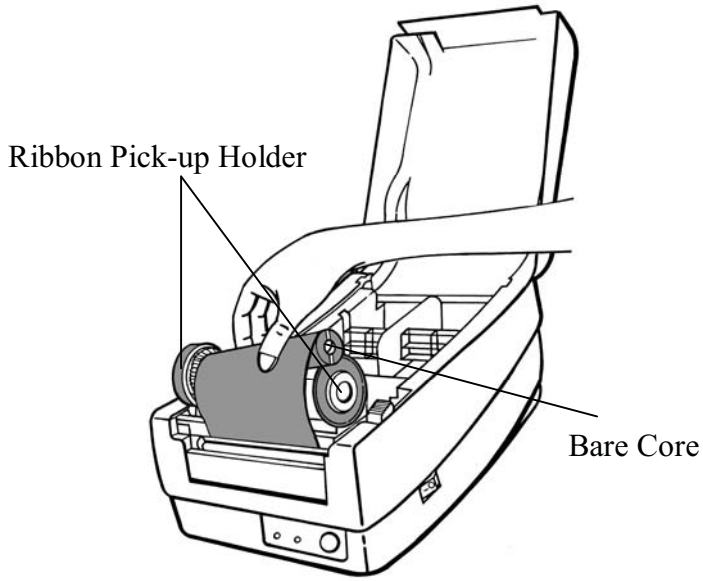




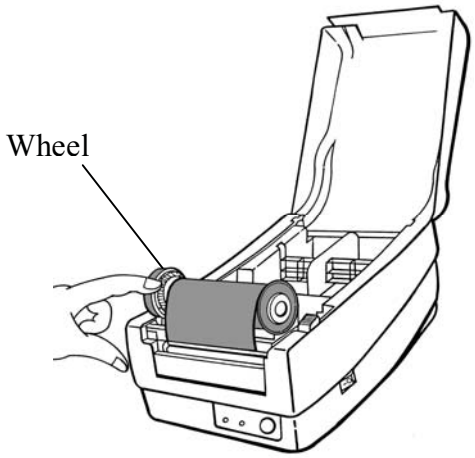
4. Unwrap the ribbon roll pack and separate the ribbon roll and the bare core.
5. Attach the edge of the ribbon on the bare core and wind it a little bit onto the core.
6. Insert the ribbon roll into the supply holder. (First snap in the left side and then the right side.)

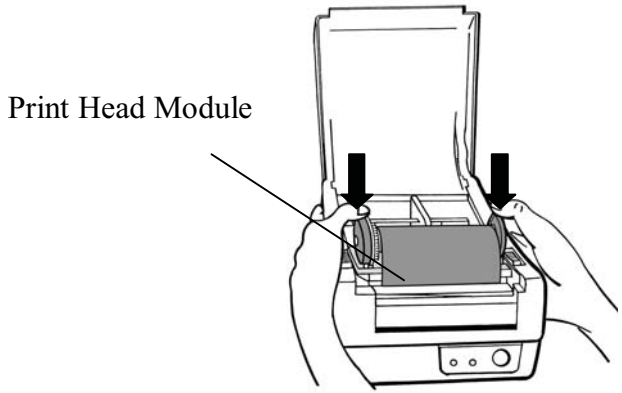


7. Turn back the print head module and then insert the bare core into the pick-up holder. (First snap in the left side, and then the right side.)



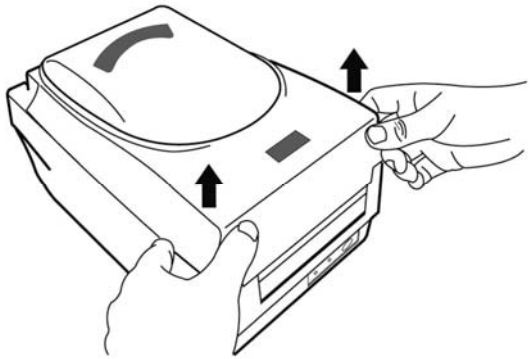
8. Turn the wheel of the print head module to ensure the ribbon is tightly wound.
9. Press down the print head module firmly until you hear a snap.



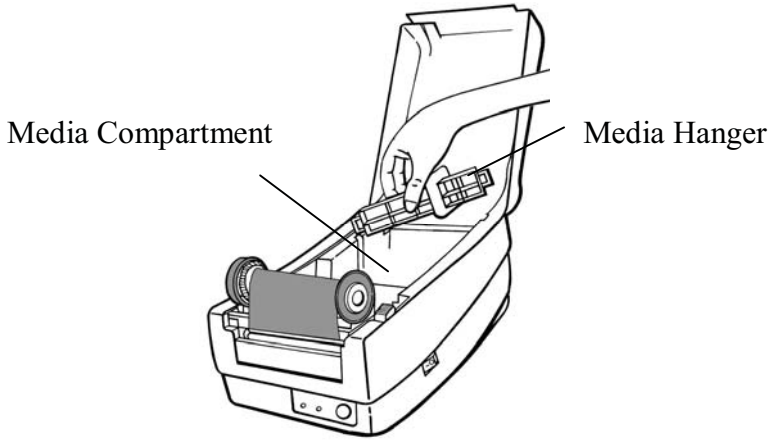


Loading Media

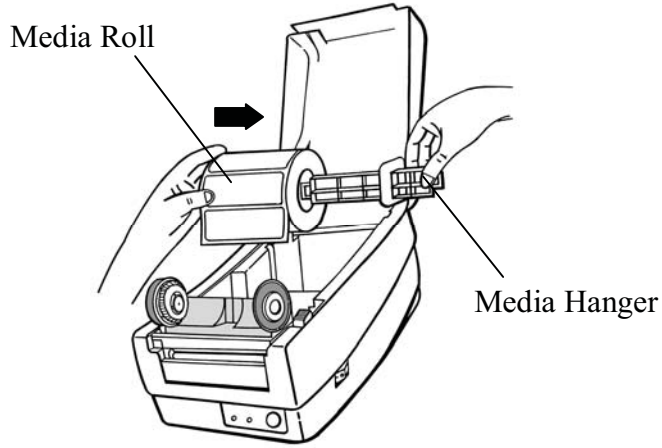
1. Lift the top cover to expose the media compartment.



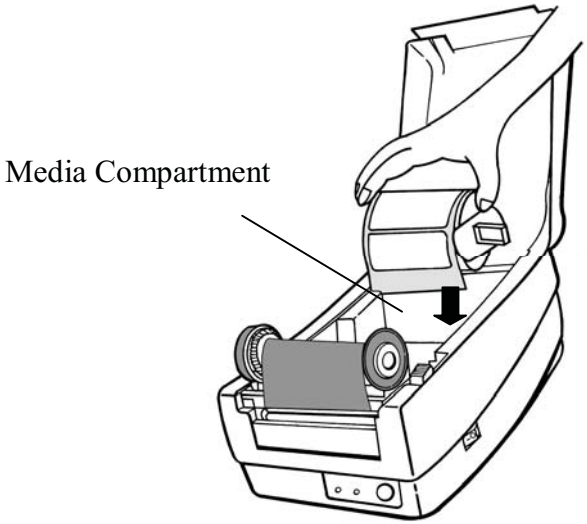
2. Remove the media hanger.

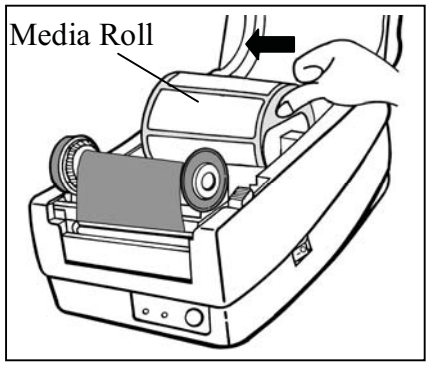


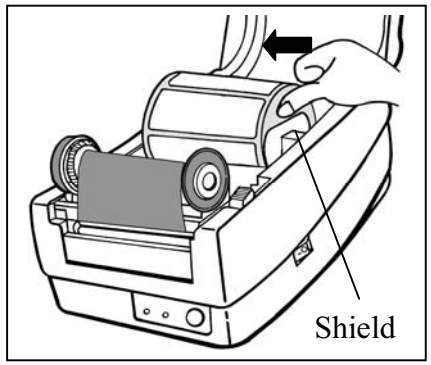
3. Load the media roll onto the hanger from left to right.



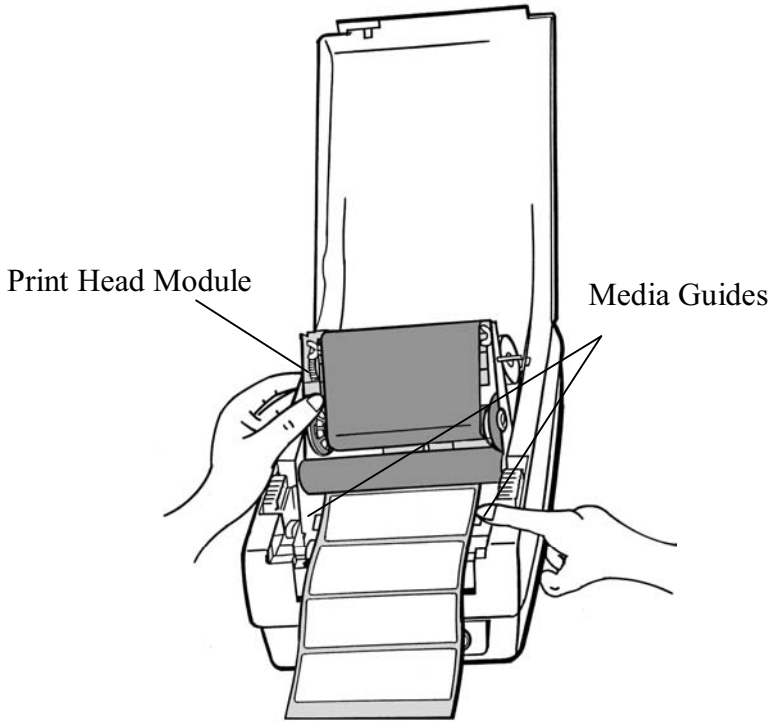
4. Click the media hanger back into the media compartment.
5. Align the media roll to the left end.
6. Move the shield from right to left until it leans against the media.







7. Unlatch the print head module.
8. Hold the print head module upright with one hand to allow the media to pass under it. Lead the media through the media guides with the other hand.
9. Lead the media over the platen roller.



10. Put the print head module down and press down firmly until you hear a snap.
11. Close the top cover and turn on the printer or press the "FEED" button if the printer is already on.

Calibration and Configuration

This section discusses calibration, printing configuration and resetting the printer to factory defaults.

Performing Calibration and Configuration

1. Turn off the printer power.
2. Press and hold the feed button while turning on the power, until the printing motor is activated.
3. Calibration is performed while the printer automatically feeds the label stock for a certain length, the printing motor suspends for one second and then prints out a configuration profile.
4. The profile includes firmware version, ROM checksum, RS-232, thermal transfer/direct thermal settings, hardware configuration, and font types.
5. At PPLB emulation, the printer enters character dump mode. To exit from dump mode, press the feed button again. (If you accidentally print the label without exiting from dump mode in advance, you need to turn on the printer or press feed button again to print normally.)

Important! *You must always carry out calibration when changing media. Failure to do so will result in improper detection by the label sensor.*

Resetting to Factory Default Settings

1. Turn on the printer and wait for 5 or more seconds.
2. Press the "Feed" button for 10 seconds, and the "Ready" indicator and "Power" indicator will go off in order.
3. When the two indicators relight, release the feed button.
4. The printer feeds approximately 3 ~5 blank labels, and then resets to the factory defaults.

Note: *Revise the factory default settings that stored in flash, even if turn off the power source cannot be eliminated.*

Installing the Printer Driver

1. Turn off the printer. Plug the power cable into the power socket on the wall, and then connect the other end of the cable to printer's power socket. Connect the USB cable to the proper port on the printer and on your computer.

2. Prepare the documentation and software CD-Rom from printer package and then install to CD-Rom drive of your computer.

3. Select “I accept…”and click "Next ".

Windows Printer Drivers
License Agreement
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WINDOWS PRINTER DRIVER
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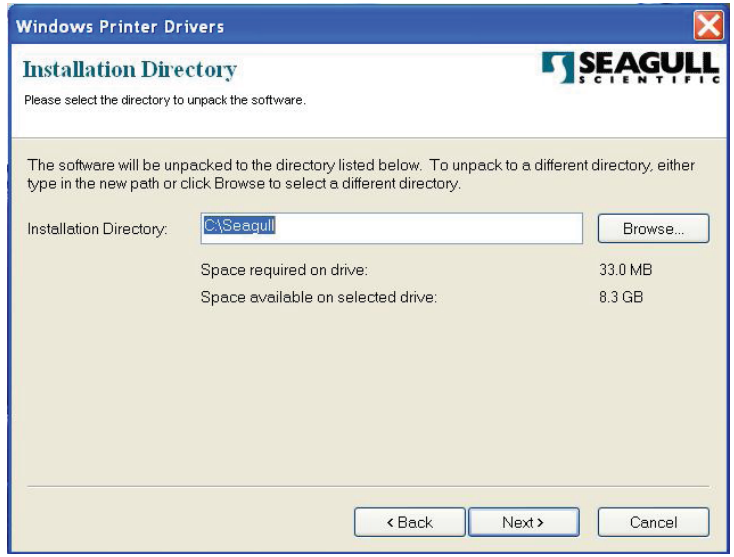
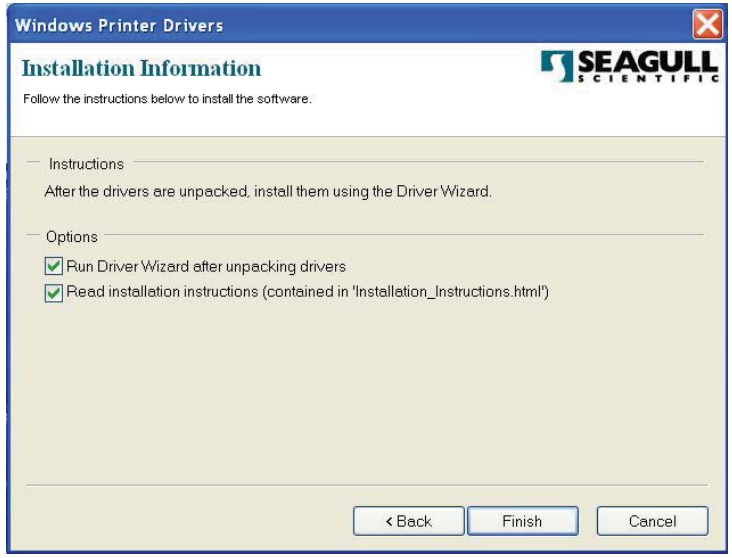
I accept the terms in the license agreement
I do not accept the terms in the license agreement
< Back
Next >
Cancel

4. Assign the directory to keep driver, (for example:C:\Seagull) and click "Next".


Windows Printer Drivers
Installation Directory
SEAGULL SCIENTIFIC
Please select the directory to unpack the software.
The software will be unpacked to the directory listed below. To unpack to a different directory, either type in the new path or click Browse to select a different directory.
Installation Directory:
C:\Seagull
Browse...
Space required on drive:
33.0 MB
Space available on selected drive:
8.3 GB
< Back
Next >
Cancel

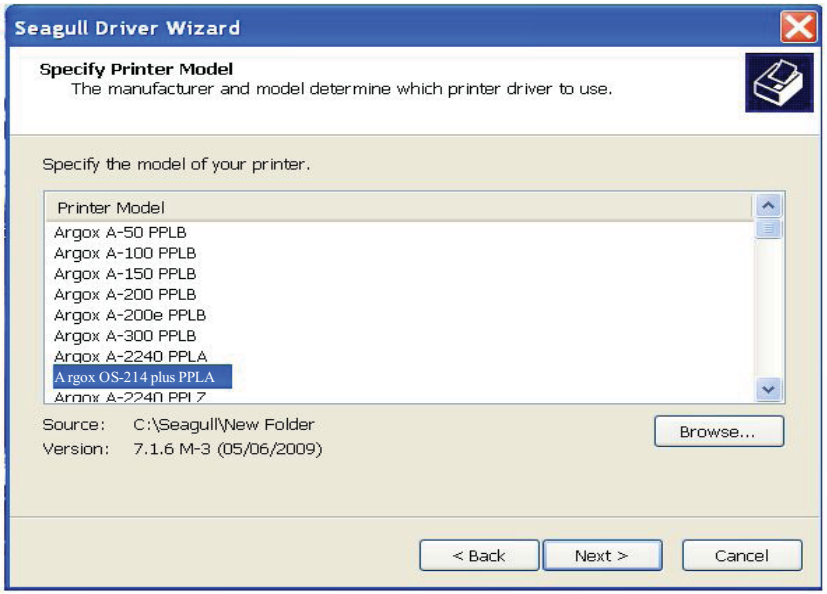
5. Click "Finish".



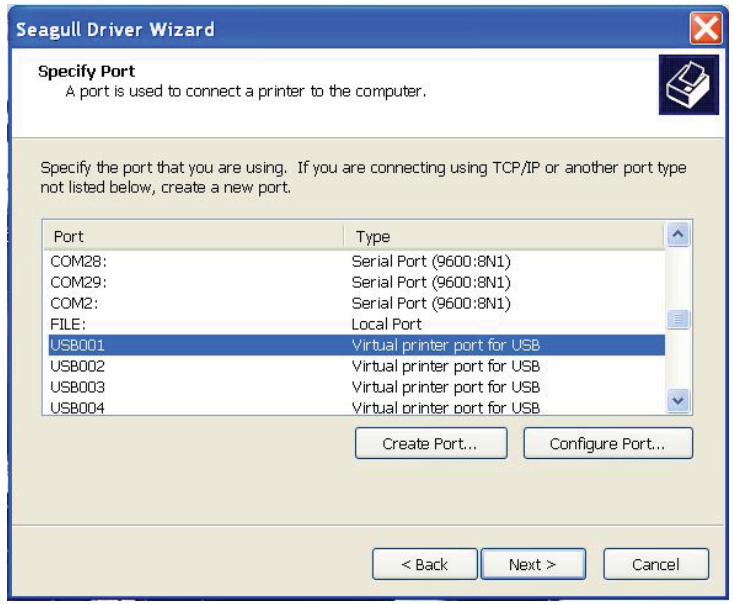
6. Select Install printer drivers and Click "Next"

Seagull Driver Wizard
Welcome to the Seagull Driver Wizard
This wizard helps you install and remove printer drivers.
What would you like to
Install printer drivers
Upgrade printer drivers
Remove printer drivers
< Back
Next >
Cancel

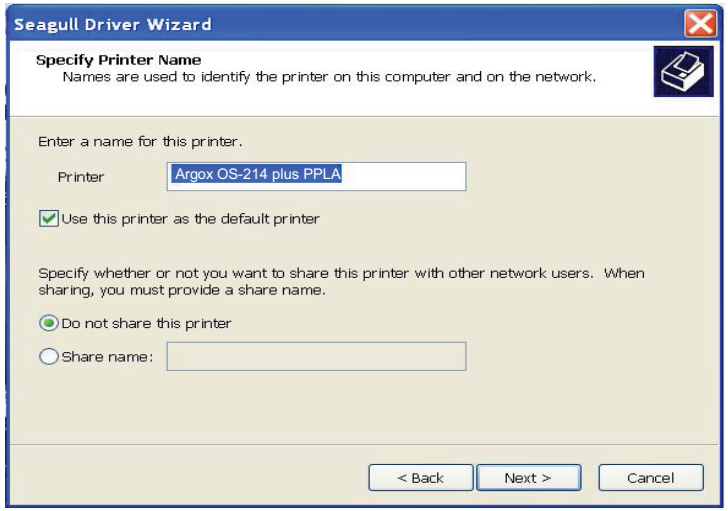
7. Select model & emulation - the following examples are based on model OS-214 plus PPLA



8. Select the port of the printer and click "Next".

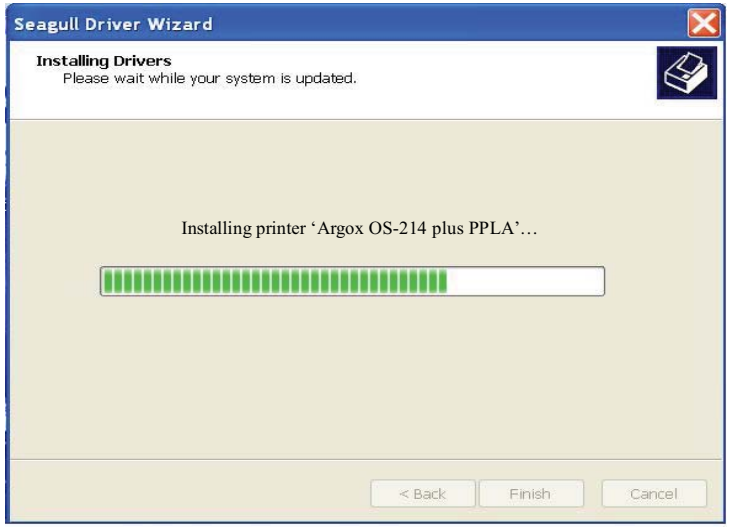

Seagull Driver Wizard
Specify Port
A port is used to connect a printer to the computer.
Specify the port that you are using. If you are connecting using TCP/IP or another port type not listed below, create a new port.
Port
Type
COM28: Serial Port (9600:8N1)
COM29: Serial Port (9600:8N1)
COM2: Serial Port (9600:8N1)
FILE: Local Port
USB001 Virtual printer port for USB
USB002 Virtual printer port for USB
USB003 Virtual printer port for USB
USB004 Virtual printer port for USB
Create Port...
Configure Port...
< Back
Next >
Cancel

9 . Enter Printer name (i.e. Argox OS-214 plus PPLA) and select "do not share this printer", and click "Next".

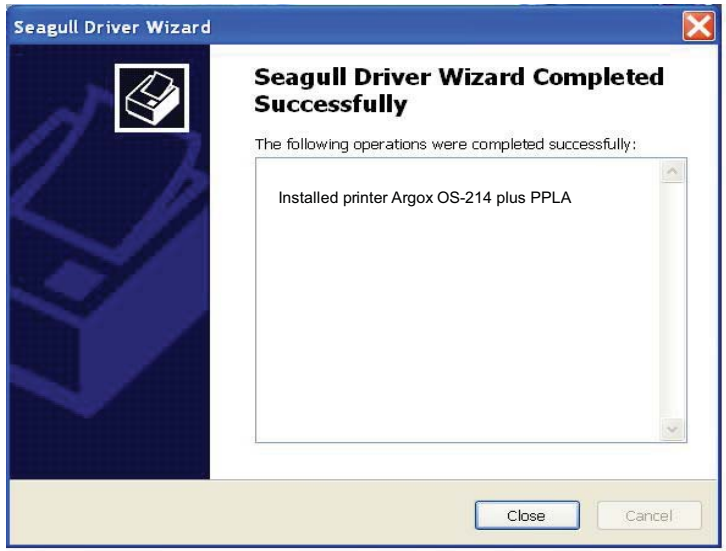

Seagull Driver Wizard
Specify Printer Name
Names are used to identify the printer on this computer and on the network.
Enter a name for this printer.
Printer
Argox OS-214 plus PPLA
Use this printer as the default printer
Specify whether or not you want to share this printer with other network users. When sharing, you must provide a share name.
Do not share this printer
Share name:
< Back
Next >
Cancel

10. Check all the data on the showing screen, if it is correct, click "Finish".

11. After the related files have been copied to your system, click "Finish".



12. After driver installation is complete, click "Close". The driver should now be installed.



Troubleshooting

Normally, when the printer is in not working properly, the "Power" LED blinks continuously; while printing and communication between the host and printer stops.

LED Diagnosis

Power and Ready LEDs blinking continuously indicates printer errors. To understand the problem, please observe the Power and Ready LEDs and refer to the following solutions:

LED Indicators: Power and Ready LEDs blink at the same tempo

Power LED	Ready LED
ON	ON
OFF	OFF

Possible Problems	Solutions	Remarks
Miss-detect gap	Check the label path Check the label sensor	If you use a continuous label roll and run under Windows, select continuous media.
Label stock out	Supply the label roll	
Label stock not installed	Install the label roll	
Label jam	Recover the jam	

LED Indicators: Power and Ready LEDs blink alternately

Power LED	Ready LED
ON	OFF
OFF	ON

Possible Problems	Solutions	Remarks
Ribbon out	Supply the ribbon roll	Not applicable to direct thermal type.
Ribbon jam	Recover the jam	
Ribbon sensor error	Replace ribbon sensor	

LED Indicators: Only the Power LED blinks

Power LED	Ready LED
ON	ON
OFF	ON

Possible Problems	Solutions	Remarks
Serial IO error	Check the baud rate	Serial interface only
Memory full	Add the extension RAM(flash memory card)	
Cutter failed, or jam at cutter	Check the cutter Recover the jam	Occurs only when installing or setting the cutter
Hardware error	Call for service	

LED Indicators: Only the Ready LED blinks

Power LED	Ready LED
ON	ON
ON	OFF

Possible Problems	Solutions	Remarks
Print head too hot	Printing will stop until the print head cools to an acceptable printing temperature. When it does, the printer will automatically resume operation.	

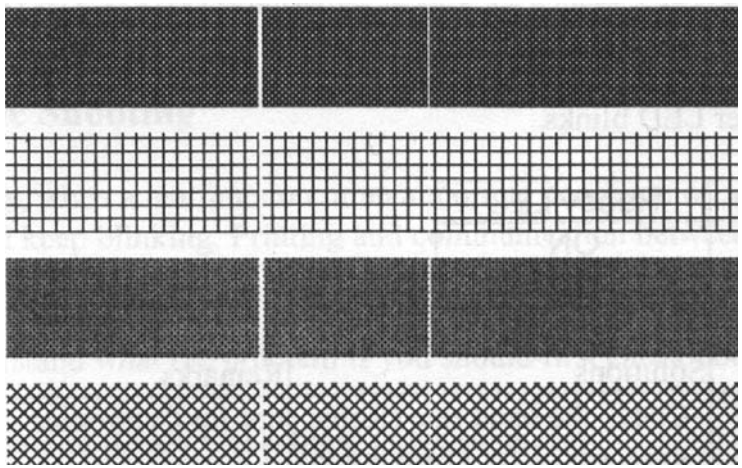
Miscellaneous

If the host shows "Printer Time out"

1. Check if the communication cable (parallel or serial) is connected securely to your parallel or serial port on the PC and to the connector on the printer at the other end.
2. Check if the printer power is turned on.

If the data has been sent, but there is no output from the printer. Check the active printer driver, and see if Seagull driver for your Windows system and the label printer has been selected.

Vertical streaks in the printout usually indicate a dirty or faulty print head. (Refer to the following examples.)



Clean the print head. If the problem persists, replace the print head.

- Poor printout quality:
  - The ribbon may not be qualified.
  - The media may not be qualified.
  - Adjust the Darkness (heat temperature).
  - Slow down the print speed.
  - Refer to the next chapter and clean the related spare parts.

Recovery

After correcting problems, simply press the panel button or restart the printer to continue your print jobs. Make sure the LEDs are not blinking and remember to resend your files.

Caring for Your Printer

Adhesives and coatings of media can over time transfer onto the printer components along the media path including the thermal print head and media sensor. This build-up can accumulate dust and debris. Failure to clean the print head, media path, and media sensor could result in inadvertent loss off labels, label jams and possible damage to the printer.

Note: *Turn off the printer before cleaning.*

Cleaning

Clean the following components of the printer using a cotton bud dampened with alcohol. Do not soak the cotton bud excessively.

Media Sensor
Debris or dirt on the paper sensor can cause a miss-read or unstable detection of the label gap. Clean with a cotton bud dampened with alcohol.

Thermal Print Head
Thermal paper stock and the ribbon release debris on the print head, which degrades printing quality. Clean the print head with methanol or isopropyl alcohol and a cotton bud. Do not touch the heater element with your fingers. Debris or dirt on the roller should be cleaned with alcohol.

TPH Cleaning Interval:

It’s strongly recommended to regularly clean print heads at least when changing every one ribbon roll (in thermal transfer printing mode), or every one label roll (in direct thermal printing mode). In addition, if printers are operated under critical applications and environments, or it’s found print quality is degraded, please clean print heads more frequently.

TPH Cleaning Material:

Surface of print head’s heating element is very fragile. To prevent from any possible damage, please use soft cloth or cotton buds with “Ethanol” or “industry alcohol” to clean print head surface.

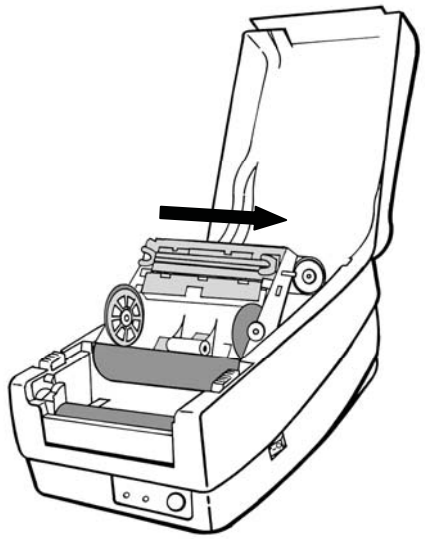
It’s strongly recommended to wear hand gloves during cleaning progress.

Do not touch print head surface by bare hands or with any hard equipment. Water or spit should be kept away in case of corrosion on heating elements.

TPH Cleaning Direction:

When cleaning print head, please always wipe in One-Way Direction - from Left to Right only, or, from Right to Left only, to clean “Heating Line” of print head gently without excessive stress.

Do not wipe back and forth, to avoid dust, dirt, or ribbon residue on cleaning cotton would be attached onto print head again. (Please refer to below picture)

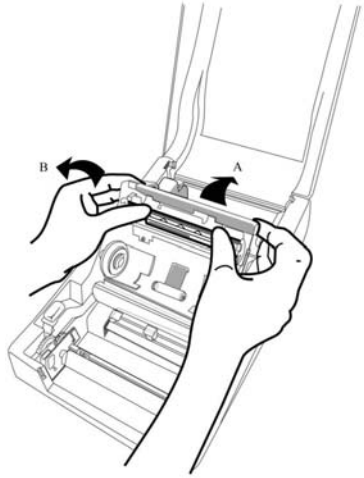


Special Caution:

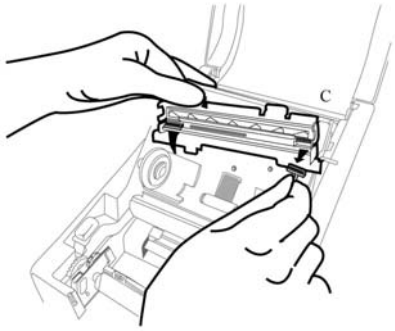
Warranty of print heads will be void if print head serial number is removed, altered, defected, or made illegible, under every circumstance.

Replacing the Thermal Print Head

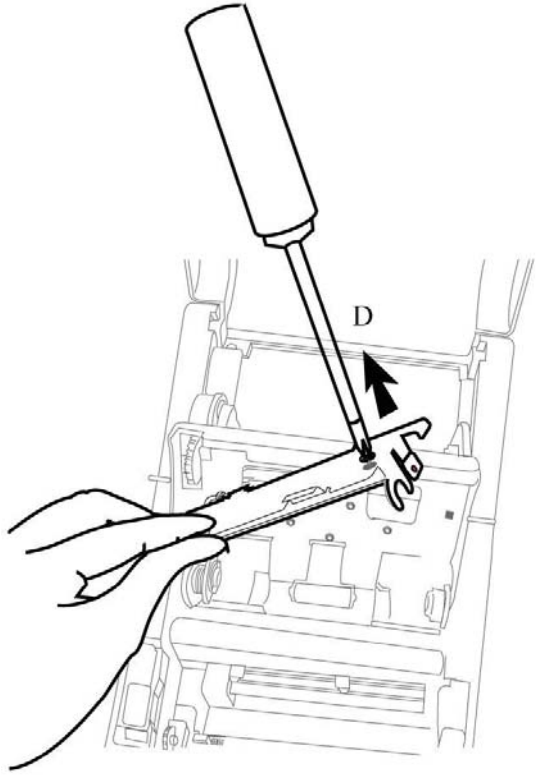
1. Switch off the power and wait for both LEDs to go off.
2. Unlatch the print head module.
3. Remove the ribbon.
4. Push the print head firmly into the casing and shift it to the left. It will release from the module.



5. Disconnect the print head cable.

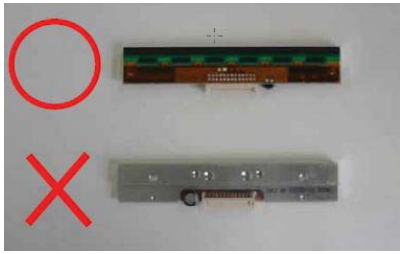


6. Disassemble the print head and the mounting bracket by releasing screws.
7. Replace with a new print head. Reassemble the print head module in reverse order. Be careful not to touch the print head elements.



Important notice during TPH replacement

1. Heater line should NOT be touched by bare hands to prevent any damage caused by ESD or corrosion.
2. Surface of heaters should NOT be hit or scratched by sharp or hard things to prevent any damage by scratch.
3. Residue or contamination should NOT be removed by a cutter to prevent any damage by dent or scratch.
4. Connector side should NOT be touched when cleaning TPH to prevent delaminated solder between FPC and wafer. Ink-jet characters could be erased, if cleaning cloth was touched them on FPC or label.
5. Heater surface should be free from any condensation.
6. TPH should NOT be put heater surface down.



Technical Reference

General Specifications

Specification	
Printing method	Direct Transfer/Thermal Transfer
Printing resolution	203 dpi (8dots/mm)
Printing speed	2~3ips(51~76mm/s)
Printing length	Max 43”(1092mm)
Printing width	Max 4.16” (105mm)
Memory	8MB DRAM(6MB user available) 4MB Flash ROM(2MB user available)
CPU type	32 bit RISC microprocessor
Media sensor	Reflective x 1
Operation interface	LED indicator(Power/Ready)x2, Button(Feed)x1
Communication Interface	Centronics Parallel, USB(2.0)
Fonts	Internal character sets standard 5 alpha-numeric fonts from 0.049”H ~ 0.23” H (1.25mm ~ 6.0mm) Internal fonts are expandable up to 24x24 4 direction 0 ~ 270 rotation Soft fonts are downloadable

Barcodes	1D:Code 39, Code 93,Code 128/subset A/B/C, Codabar, Interleaved 2 of 5, UPC A/E/2/5 add-on, EAN-13/8, UCC/EAN 128, Postnet, Plessey, Interleaved 2 of 5, Interleaved 2 of 5 with a modulo 10 checksum, Interleaved 2 of 5 with a modulo 10 checksum and shipping bearer bars , Code 128, UCC/EAN Code 128 Random Weight, HBIC, Telepen , FIM 2D:PDF-417, MaxiCode, Data Matrix (ECC200 only) ,QR Code, Composite codes
Graphic	PCX, BMP, IMG, HEX ,GDI
Software-Label editing	Windows Driver (Win 2003/XP/Vista/Windows 7) BarTender ,
Software-Utility	Printer Utility, Font Utility
Media Type	Roll-feed, die-cut, continuous, fan-fold, tags, ticket in thermal paper or plain paper and fabric label
Media	Max Width:4.33”(110mm) Min Width:1”(25.4mm) Thickness:0.0025”~0.01”(0.0635~0.254mm) Max roll capacity(OD):4.3”(109mm) Core size:0.5”(12.7mm) (1”(25.4mm) optional)
Ribbon	Ribbon Width: 1”~4” Ribbon roll – max OD: 1.45”(37mm) Ribbon Length: max 92m Core size – ID: 0.5”(13mm) with notch Wax, Wax/Resin, Resin (Outside Ribbon)
Dimensions	W 182mm x H 161mm x L 280mm
Weight	2.0kgs
Power Source	Universal Switching Power Supply Input: 100V~240V, 1.5A, 50~60Hz, Output: 24VDC, 2.4A
Operation Environment	Operation Temperature: 40°F~100°F (4°C~38°C), 10% ~ 90% non-condensing, Storage Temperature: -4°F~122°F (-20°C~50°C)